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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,319	03/12/2004	Shinji Watanabe	Q78521	6147

7590 02/14/2006
SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

DANG, PHUC T

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/798,319

Applicant(s)

WATANABE ET AL.

Examiner

PHUC T. DANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on election filed on December 20, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 36-69 is/are pending in the application.
- 4a) Of the above claim(s) 53-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 36, 39, 42-45, 51 and 52 is/are rejected.
- 7) ☒ Claim(s) 37, 38, 40, 41 and 46-50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/789,666.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>031204</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Invention Species I (claims 1 and 36-52) filed on December 20, 2005 has been acknowledged.

The traversal is on the ground(s) that the search would allegedly not cause undue burden of search for Examiner. This is not found persuasive because burden of search has already established by the different classification of Inventions I, II and III drawn to a method of supplying a substrate in a chip mounting apparatus, a method for supplying a chip in a chip mounting apparatus and a method for mounting a chip on a substrate, respectively, which are completely distinct methods in a process and accordingly require divergent searches. This imposes undue burden to search.

Furthermore, elected species I is drawn to a step of providing a chip on a supplied substrate, whereas the non-elected species II is drawn to a step of providing a chip on chip trays and transport the lowermost chip tray to an adjacent chip supply stage and the non-elected species III is drawn to a step of transporting a substrate to a position above a stage via a conveyor and moving the conveyor and stage toward each other so that the stage removes the substrate from the conveyor and supports the substrate above the conveyor for chip mounting, each group of which is a different species in and of itself. Such a search would be excessively burdensome.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 53-69 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to non-elected inventions, there being no allowable generic or linking claim.

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Oath/Declaration

3. The oath/declaration filed on March 12, 2004 is acceptable.

Information Disclosure Statement

4. The office acknowledges receipt of the following items from the applicant:

Information Disclosure Statement (IDS) filed on March 12, 2004.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 36, 39, 42-45 and 51-52 are rejected under 35 U.S.C. 102 (b) as being anticipated by Itemadani et al., hereafter "Itemadani" (U.S. Patent No. 4,825,536).

Regarding claims 1, and 42-43, Itemadani discloses a method for fabricating electronic circuit board comprising:

supplying a substrate (11, Fig. 5) on which a chip (15, Fig. 5) is mounted to a position for chip mounting, wherein the method supplies the substrate (11, Fig. 5) in the same manner when the substrate (11, Fig. 5) is a discrete substrate or independent unit substrate consisting of a plurality of discrete substrates [Fig. 5 and see Abstract].

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Regarding claim 44, Itemadani discloses the substrate 11 is affixed onto an expanded sheet 41 where multiple device of resistors 3 are deposited [Fig. 6 and see col. 3, lines 47-50].

Regarding claim 36, Itemadani discloses a method for fabricating electronic circuit board comprising:

transporting a substrate 11 to a position above a stage 53 via a conveyor 55;

moving the conveyor 55 and stage 53 toward each other so that the stage 53 removes the substrate 11 from the conveyor 55 and supports the substrate 11 above the conveyor 55 for chip mounting [Fig. 9 and col. 3, line 56-col. 4, line 8].

Regarding claim 39, Itemadani discloses the movement of the conveyor and stage toward each other is provided by movement of the stage while the conveyor remains stationary [Fig. 9].

Regarding claim 45, Itemadani discloses a method for fabricating electronic circuit board comprising:

removably holding the substrate 11 in a substrate carrier 52;

transporting the substrate carrier 52 to a position above a stage 53;

moving the substrate carrier 52 and stage 53 toward each other so that the stage 53 removes the substrate 11 from the substrate carrier 52 and supports the substrate 11 above the substrate carrier 52 for chip mounting [Fig. 9 and col. 3, line 56-col. 4, line 8].

Regarding claim 51, claim 51 is rejected as similar to claim 42 above.

Regarding claim 52, claim 52 is rejected as similar to claim 43 above.

Allowable Subject Matter

6. The following is a statement of reason for the indication of allowable subject matter:

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Claims 37-38, 40-41, and 46-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

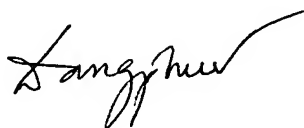
None of the Prior art of record does not disclose comprising maintaining a volume around the stage with a positive air pressure to maintain a clean environment as cited in claim 37 and The movement of the conveyor and stage toward each other is provided by movement of the conveyor while the stage remains stationary as cited in claim 38 and the conveyor is of a concave shape with a through hole in a bottom surface thereof, so that the concave shape supports a perimeter of the substrate and the through hole allows passage of a portion of the stage as cited in claim 40 and comprising activating a stopper to stop the movement of the substrate when it reaches a position above the stage as cited in claim 41 and comprising maintaining a volume around the stage with a positive air pressure to maintain a clean environment as cited in claim 46 and the movement of the substrate carrier and stage toward each other is provided by movement of the substrate carrier while the stage remains stationary as cited in claim 47 and the movement of the substrate carrier and stage toward each other is provided by movement of the stage while the substrate carrier remains stationary as cited in claim 48 and the substrate carrier is of a concave shape with a through hole in a bottom surface thereof, so that the concave shape supports a perimeter of the substrate and the through hole allows passage of a portion of the stage as cited in claim 49 and comprising activating a stopper to stop the movement of the substrate when it reaches a position above the stage as cited in claim 50.

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Conclusion

7. Applicants are advised to cancel the non-elected claims 53-69 upon response to the next Office action if the application is considered to be allowed.
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hang et al. (U.S. Patent No. 4,256,796) discloses Partially devitrified porcelain composition and articles prepared with same and Araki (U.S. patent No. 5,564,8899) discloses Semiconductor treatment system and method for exchanging and treating substrate.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuc T. Dang whose telephone number is 571-272-1776. The examiner can normally be reached on 8:00 am-5:00 pm.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and Final communications.
11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Phuc T. Dang



Primary Examiner

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